MONTANA Department of REVENUE

2020 Capitalization Rate Study Scheduled Airlines - Freight

FINAL

Completed: April 28, 2020

Yield Capitalization Rate Conclusion Industry: Scheduled Airlines - Freight 2020 Assessment Year

Capital Structure ^[1] Equity Debt	60.00% 40.00%	
Equity Cost of Capital		Weighting
Capital Asset Pricing Model - Ex Post [2]	11.19%	45%
Capital Asset Pricing Model - Ex Ante [2]	8.75%	45%
3 Stage Dividend Discount Model - Dividends [3]	8.40%	5%
3 Stage Dividend Discount Model - Earnings [3]	9.80%	<u>5%</u>
Weighted Average	9.88%	100%
Selected Cost of Equity	9.90%	=
Debt Cost of Capital		Weighting
A - Mergent's - Avg. YTM of A Rated Corporate Bonds [4]	3.36%	0%
Baa - Mergent's - Avg. YTM of Baa Rated Corporate Bonds [4]	3.88%	0%
Ba - MTDOR - Avg. YTM of Ba Rated Corporate Bonds [5]	6.58%	<u>100%</u>
Weighted Average	6.58%	100%
Selected Cost of Debt	6.60%	_

Weighted Average Cost of Capital (WACC)

Source of Capital	Capital Structure	Cost of Capital	Marginal Tax Rate	After-tax Cost of Capital	Weighted Cost
Equity	60.00%	9.90%		9.90%	5.94%
Debt	40.00%	6.60%	24.00%	5.02%	2.01%
WACC	100.00%				7.95%
WACC (Round	ded)				8.00%

Notes

- [1] From worksheet: Capital Structure
- [2] From worksheet: Capital Asset Pricing Model Summary
- [3] From worksheet: Yield Equity Summary
- [4] January 2020, Mergent Bond Record
- [5] Montana Department of Revenue High Yield Debt Study

Direct Capitalization Rate Conclusion Industry: Scheduled Airlines - Freight 2020 Assessment Year

Capital Structure [1]

Equity 60.00% Debt 40.00%

Equity Capitalization Rate [2]

NOI After-tax **7.35%** GCF **17.60%**

Debt Capitalization Rate [3]

Source of

Capital

Equity

Debt

Total

Calculated Current Yield 4.60%

		•			
Capital Capitalization		Marginal Tax	After-tax Capitalization	Weighted Capitalization	
Structure	Rate	Rate	Rate	Rate	
60.00%	7.35%		7.35%	4.41%	
40.00%	4.60%	24.00%	3.50%	1.40%	

5.81%

12.00%

Total (Rounded) 5.90%

NOI After-tax Direct Capitalization Rate

GCF Direct Capitalization Rate

Source of Capital	Capital Structure	Capitalization Rate	Marginal Tax Rate	After-tax Capitalization Rate	Weighted Capitalization Rate
Equity	60.00%	17.60%		17.60%	10.56%
Debt	40.00%	4.60%	24.00%	3.50%	1.40%
WACC	100.00%				11.96%

Notes

Total (Rounded)

- [1] From worksheet: Capital Structure
- [2] From worksheet: Direct Equity Summary

100.00%

[3] From worksheet: Calculated Current Yield

Selection of Guideline Companies Industry: Scheduled Airlines - Freight 2020 Assessment Year

Screening Requirements:

The universe of companies is all companies listed in Value Line under the air transport industry.

Companies were then selected using the following screening criteria:

- 1. Operates primarily as a freight carrier / air cargo service.
- 2. Actively traded on an American exchange.
- 3. Headquartered / incorporated in the United States
- 4. No significant merger & acquisition activity during the year.

		Actively		Consider as			
		traded on an		Potential	Not Engaged	Use as	
Company		American	Headquartered in	Guideline	in Material	Guideline	
Ticker	Air Cargo	exchange	the United States	Company	M&A Activity	Company	Note
AAL	No			No			
AAWW	Yes	Yes	Yes	Yes	Yes	Yes	
AIRT	Yes	Yes	Yes	Yes	Yes	Yes	
ALGT	No			No			
ALK	No			No			
ATSG	Yes	Yes	Yes	Yes	Yes	Yes	
СРА	No		No	No			
DAL	No			No			
ERA	No			No			
FDX	Yes	Yes	Yes	Yes	Yes	Yes	
НА	No			No			
JBLU	No			No			
LUV	No			No			
MESA	No			No			
RLGT	No			No			
SAVE	No			No			
SKYW	No			No			
UAL	No			No			
UPS	Yes	Yes	Yes	Yes	Yes	Yes	
WJA.TO	No			No			

Support for Capital Structure Industry: Scheduled Airlines - Freight 2020 Assessment Year

(\$ and Shares Outstanding In Millions, Except Per Share Amounts)

Α	В	С	D	E	F	G	Н	I	J	K	L	М	N
					End of					Total			
					Year					Common,			1
					Closing	MV			PV of	Preferred, LT			1
		Industry	Financial	Shares	Stock	Common	MV Preferred	MV Long	Operating	Debt, & Op		%	% Debt &
Ticker	Company	Group	Strength	Outstanding	Price	Stock	Stock	Term Debt	Leases	Leases	% Common	Preferred	Op Leases
		Value Line	Value Line	10-K	Yahoo	ExF	10-K	10-K	10-K	G+H+I+J	G/K	H/K	(I+J)/K
							Note [1]	Note [2]					
AAWW	Atlas Air Worldwide	AIRTRANS	B+	25.871	27.57	713	0	2,464	535	3,712			
AIRT	Air T Inc	AIRTRANS	С	2.023	20.15	41	0	58	11	109			
ATSG	Air Transport Services Grp.	AIRTRANS	В	59.329	23.46	1,392	0	1,482	40	2,914	48%	0%	52%
FDX	FedEx Corp.	AIRTRANS	A++	260.808	151.21	39,437	0	17,800	13,320	70,557	56%	0%	44%
UPS	United Parcel Serv.	AIRTRANS	Α	858.488	117.06	100,495	0	26,949	2,929	130,373	77%	0%	23%
All Comp	anies					142,077	0	48,753	16,835	207,665	68%	0%	32%
Averag	je										60%	0%	40%
Media	า										56%	0%	44%
High											77%	0%	52%
Low											48%	0%	23%
Selected	·								•		60%		40%

<u>Notes</u>

[1] Market value of preferred stock assumed to equal book value

[2] Market value of debt is fair value of long term debt from 10-K notes

MCA 15-1-210, rationale for changes to guideline companies:

2020 - No changes to guideline companies

Current Average	60%	0%	40%
1 Year Ago	61%	0%	39%
2 Years Ago	37%	0%	63%
3 Year Average	53%	0%	47%

Capital Asset Pricing Model (CAPM) Industry: Scheduled Airlines - Freight 2020 Assessment Year

$k_e = R_f + \beta x ERP$

	Ex Post	Ex Ante
k_{e} Cost of Equity	11.19%	8.75%
R_f = Risk Free Rate	2.25%	2.25%
β = Beta	1.25	1.25
ERP = Equity Risk Premium (R _m - R _f)	7.15%	5.20%
R_m = Market Rate of Return	9.40%	7.45%

Risk Free Rate Measures (R_f):

The Value Line Investment Survey: Selection & Opinion ^[1] January 3, 2020 Page 1325	
Selected Yields on Taxable U.S. Treasury Securities as of 12/24/19	
10-year	1.90%
30-year	2.33%
<u>Federal Reserve Statistical Release^[2] and U.S. Department of the Treasury, Daily Treasury Yield Curve Rates</u> U.S. government securities, Treasury constant maturities, Nominal, December 31, 2019	
10-year	1.92%
20-year	2.25%
30-year	2.39%
Risk Free Rate Selected	2.25%

Notes

- [1] "Value Line Selection & Opinion", Value Line (January 3, 2020)
- [2] https://www.federalreserve.gov/datadownload/Choose.aspx?rel=H.15
- [3] https://www.treasury.gov/resource-center/data-chart-center/interest-rates/

Ex Post - Equity Risk Premium Measures (ERP = Rm - Rf)

Duff & Phelps, 2020 Cost of Capital Navigator $R_m^{[4]}$ R_m $R_{\rm f}$ <u>ERP</u> ERP "Historical" - Ex Post Arithmetic Avg. 9.40% 9.40% 2.25% 7.15% ERP "Supply-side" - Ex Post 8.42% 2.25% Arithmetic Avg. 8.42% 6.17% Ex Post Equity Risk Premium Selected 9.40% 2.25% 7.15%

Capital Asset Pricing Model (CAPM) Industry: Scheduled Airlines - Freight 2020 Assessment Year

$k_e = R_f + \beta x ERP$

Ex Ante - Equity Risk Premium Measures (ERP = Rm - Rf)

Equity Risk Premium Selected	7.45%		2.25%	5.20%
Low	7.31%	6.98%		5.00%
<u>High</u>	7.45%	8.00%		5.20%
<u>Median</u>	7.35%	7.24%		5.08%
<u>Average</u>	7.37%	7.36%		5.09%
	$R_{m}^{[4]}$	R _m	\underline{R}_{f}	<u>ERP</u>
Implied Premium (FCFE with sustainable payout) - Ex Ante	7.31%	6.98%	1.92%	5.06%
Implied Premium (FCFE) - Ex Ante	7.45%	7.12%	1.92%	5.20%
Damodaran Implied ERP (Jan 8, 2020)	R _m ^[4]	<u>R</u>	$R_{\rm f}$	<u>ERP</u>
ERP "Conditional" - Ex Ante		8.00%	3.00%	5.00%
Duff & Phelps, 2020 Cost of Capital Navigator	$R_m^{[4]}$	<u>R</u> _m	$R_{\rm f}$	<u>ERP</u>
LINI - LX Ante	7.5570	7.5570	2.2570	3.1070
ERP - Ex Ante	R _m ^[4] 7.35%	<u>R</u> _m 7.35%	<u>R_f</u> 2.25%	<u>ERP</u> 5.10%
DOR 3 Stage Dividend Growth Model, S & P 500, See Exhibit				

Notes

[4] R_m estimated using selected Risk Free Rate (R_f)

Support for Beta Selection in CAPM Industry: Scheduled Airlines - Freight 2020 Assessment Year

Α	В	С	D	E
		Industry	Financial	
Ticker	Company	Group	Strength	Beta
		Value Line	Value Line	Value Line
AAWW	Atlas Air Worldwide	AIRTRANS	B+	1.75
AIRT	Air T Inc	AIRTRANS	С	0.75
ATSG	Air Transport Services Grp.	AIRTRANS	В	1.20
FDX	FedEx Corp.	AIRTRANS	A++	1.40
UPS	United Parcel Serv.	AIRTRANS	Α	1.00
Average		=	-	1.22
Median				1.20
High				1.75
Low				0.75
Selected				1.25

Inflation & Real Growth Industry: Scheduled Airlines - Freight 2020 Assessment Year

				Nomina	I Growth
Α	В	С	D	E	F
Source Description	Inflation (CPI)	Real Growth (GDP)	Nominal Growth	Low	High
Livingston Survey ^[1]	2.19%	2.14%	4.33%	•	
Survey of Professional Forecasters ^[2]	2.23%	2.03%	4.26%		
Congressional Budget Office ^[3]	2.40%	2.20%	4.60%		
Average	2.27%	2.12%	4.40%		
Median	2.23%	2.14%	4.37%		
High	2.40%	2.20%	4.60%		
Low	2.19%	2.03%	4.22%		
Selected	2.20%	2.20%	4.40%	4.22%	4.60%

Inflationary Trend	l Factors					
Year	Dec. CPI-U Index	Percent Change From Previous	Dec. to Dec. Conversion Factor	Annual Avg. CPI-U Index	Percent Change From Previous	Annual Conversion Factor
	Note [5]	Note [6]	Note [7]	Note [5]	Note [6]	Note [7]
2007	210.036		1.2235	207.342		1.2330
2008	210.228	0.1%	1.2224	215.303	3.7%	1.1874
2009	215.949	2.6%	1.1900	214.537	-0.4%	1.1917
2010	219.179	1.5%	1.1724	218.056	1.6%	1.1724
2011	225.672	2.9%	1.1387	224.939	3.1%	1.1366
2012	229.601	1.7%	1.1192	229.594	2.0%	1.1135
2013	233.049	1.5%	1.1027	232.957	1.4%	1.0974
2014	234.812	0.8%	1.0944	236.736	1.6%	1.0799
2015	236.525	0.7%	1.0865	237.017	0.1%	1.0786
2016	241.432	2.0%	1.0644	240.007	1.2%	1.0652
2017	246.524	2.1%	1.0424	245.120	2.1%	1.0430
2018	251.233	1.9%	1.0229	251.107	2.4%	1.0181
2019	256.974	2.2%	1.0000	255.657	1.8%	1.0000

Notes

[1] Federal Reserve Bank of Philadelphia The Livingston Survey December 13, 2019 Table 3 Inflation Rate and Real GDP mean

https://www.philadelphiafed.org/research-and-data/real-time-center/livingston-survey

[2] Federal Reserve Bank of Philadelphia Survey of Professional Forecasters February 14, 2020 Table 8 and Table 9 Average over next 10-Year mean

https://www.philadelphiafed.org/research-and-data/real-time-center/survey-of-professional-forecasters/2020/survq120

[3] Congressional Budget Office, The Budget and Economic Outlook: 2020 to 2030, Table 2-1 https://www.cbo.gov/about/products/budget-economic-data#4

[5] Historical Consumer Price Index for All Urban Consumers (CPI-U): U.S. city average, all items, index averages (1982-84=100, unless otherwise noted)

https://www.bls.gov/cpi/tables/supplemental-files/historical-cpi-u-202001.pdf

[6] (Row year - Previous Year) / Row Year

[7] Most current year / Row year

3 Stage Dividend Discount Model (DDM) Industry: Scheduled Airlines - Freight 2020 Assessment Year

$$k_e = (D_1 / P_0) + g$$

 k_e = Cost of Equity

D₁ = Expected Dividend

P₀ = Current Price Per Share

g = Sustainable Long-Term Growth

Α	В	С	D	E	F	G	Н	I
		2019	2020 Est	Expected	Sustainable	Sustainable	Cost of Equity	Cost of Equity
		Year End Stock	Div'ds Decl'd	Equity Payout	Long-Term	Long-Term	Dividend	Earnings
Ticker	Company	Price	per sh	Yield	Growth Rate [1]	Growth Rate [1]	Growth	Growth
		Yahoo	Value Line	D/C	Dividends	Earnings	E+F	E+G
		P ₀	D ₁	D ₁ /P ₀	g	g	k _e	k _e
AAWW	Atlas Air Worldwide	27.57	0.00	0.00%	0.00%	0.00%		
AIRT	Air T Inc	20.15	0.00	0.00%	0.00%	0.00%		
ATSG	Air Transport Services Grp.	23.46	0.00	0.00%	0.00%	0.00%		
FDX	FedEx Corp.	151.21	2.60	1.72%	6.24%	8.99%	7.96%	10.71%
UPS	United Parcel Serv.	117.06	4.00	3.42%	5.39%	5.50%	8.81%	8.91%
Average		-		-	-		8.39%	9.81%
Median							8.39%	9.81%
High							8.81%	10.71%
Low							7.96%	8.91%
Selected							8.40%	9.80%

Notes

[1] From worksheet: DDM Sustainable Long-Term Growth

Support for DDM - Short Term Growth Rate Calculations Industry: Scheduled Airlines - Freight 2020 Assessment Year

Α	В	С	D	E	F	G
		End of Year	Div'ds Decl'd	Expected	Div'ds Decl'd	
		Closing Stock	per sh	Dividend	per sh	Short-Term
Ticker	Company	Price	2020 Est	Yield	2023-2025 Est	Growth Rate
		Yahoo	Value Line	D/C	Value Line	Note [1]
AAWW	Atlas Air Worldwide	27.57	0.00	0.00%		
AIRT	Air T Inc	20.15	0.00	0.00%		
ATSG	Air Transport Services Grp.	23.46	0.00	0.00%		
FDX	FedEx Corp.	151.21	2.60	1.72%	3.80	9.95%
UPS	United Parcel Serv.	117.06	4.00	3.42%	5.15	6.52%

Α	В	С	D	E
		Earnings per	Earnings per	
		share	share	Short-Term
Ticker	Company	2020 Est	2023-2025 Est	Growth Rate
		Value Line	Value Line	Note [1]
AAWW	Atlas Air Worldwide	4.55	6.30	8.48%
AIRT	Air T Inc	0.00	0.00	
ATSG	Air Transport Services Grp.	1.61	0.00	
FDX	FedEx Corp.	10.75	19.25	15.68%
UPS	United Parcel Serv.	7.90	10.25	6.73%

<u>Notes</u>

[1] 5 year compound annual growth rate (CAGR) - 4 periods

DDM Sustainable Long Term Growth Industry: Scheduled Airlines - Freight 2020 Assessment Year

Dividend	Growth Rate								Stage 1				
Ticker	Company	Year End Stock Price	Expected Short-Term Dividend Growth Rate	Expected Long-Term Growth Rate	Expected Dividend Yield	Internal Rate of Return	Implied Sustainable Long-Term Growth Rate (g)	Initial Investment	D ₁	D_2	D_3	D_4	D_5
		Yahoo	Note [1]	Note [2]	D ₁ /P ₀	Ke = IRR of D ₁ :D ₅₀₀	g = IRR - Div. Yield						
AAWW	Atlas Air Worldwide	27.57	0.00%	4.40%	0.00%			(27.57)	0.00	0.00	0.00	0.00	0.00
AIRT	Air T Inc	20.15	0.00%	4.40%	0.00%			(20.15)	0.00	0.00	0.00	0.00	0.00
ATSG	Air Transport Services Grp.	23.46	0.00%	4.40%	0.00%			(23.46)	0.00	0.00	0.00	0.00	0.00
FDX	FedEx Corp.	151.21	9.95%	4.40%	1.72%	7.96%	6.24%	(151.21)	2.60	2.86	3.14	3.46	3.80
UPS	United Parcel Serv.	117.06	6.52%	4.40%	3.42%	8.81%	5.39%	(117.06)	4.00	4.26	4.54	4.83	5.15

Earnings	Growth Rate								Stage 1				
Ticker	Company	Year End Stock Price	Expected Short-Term Earnings Growth Rate	Expected Long-Term Growth Rate	Expected Dividend Yield	Internal Rate of Return	Implied Sustainable Long-Term Growth Rate (g)	Initial Investment	D ₁	D_2	D_3	D_4	D ₅
		Yahoo	Note [1]	Note [2]	D ₁ /P ₀	Ke = IRR of D ₁ :D ₅₀₀	g = IRR - Div. Yield						
AAWW	Atlas Air Worldwide	27.57	8.48%	4.40%	0.00%			(27.57)	0.00	0.00	0.00	0.00	0.00
AIRT	Air T Inc	20.15	0.00%	4.40%	0.00%			(20.15)	0.00	0.00	0.00	0.00	0.00
ATSG	Air Transport Services Grp.	23.46	0.00%	4.40%	0.00%			(23.46)	0.00	0.00	0.00	0.00	0.00
FDX	FedEx Corp.	151.21	15.68%	4.40%	1.72%	10.71%	8.99%	(151.21)	2.60	3.01	3.48	4.02	4.66
UPS	United Parcel Serv.	117.06	6.73%	4.40%	3.42%	8.91%	5.50%	(117.06)	4.00	4.27	4.56	4.86	5.19

Notes [1] From worksheet: DDM Short Term Growth Rate Calculations

[2] From worksheet: Inflation & Real Growth

DDM Sustainable Long Term Growth Industry: Scheduled Airlines - Freight 2020 Assessment Year

Dividend	Stage 2															Stage 3		
Ticker	D ₆	D ₇	D ₈	D ₉	D ₁₀	D ₁₁	D ₁₂	D ₁₃	D ₁₄	D ₁₅	D ₁₆	D ₁₇	D ₁₈	D ₁₉	D ₂₀	D ₂₁	D ₂₂	D ₅₀₀
AAWW	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
AIRT	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
ATSG	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
FDX	4.16	4.56	5.00	5.48	6.00	6.58	7.21	7.90	8.66	9.49	10.40	11.39	12.48	13.68	14.99	15.65	16.34	14,193,690,888
UPS	5.48	5.83	6.20	6.60	7.02	7.46	7.94	8.45	8.99	9.56	10.17	10.82	11.51	12.24	13.02	13.60	14.19	12,329,457,186

Earnings	Stage 2															Stage 3		
Ticker	D_{6}	D ₇	D_8	D_9	D ₁₀	D ₁₁	D ₁₂	D ₁₃	D ₁₄	D ₁₅	D ₁₆	D ₁₇	D ₁₈	D ₁₉	D ₂₀	D ₂₁	D ₂₂	D ₅₀₀
AAWW	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
AIRT	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
ATSG	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
FDX	5.35	6.15	7.07	8.12	9.33	10.73	12.33	14.17	16.29	18.72	21.51	24.72	28.41	32.65	37.53	39.18	40.90	35,529,123,162
UPS	5.53	5.89	6.28	6.69	7.13	7.60	8.10	8.64	9.20	9.81	10.45	11.14	11.87	12.65	13.48	14.08	14.70	12,765,363,797

Support for Cost of Debt Component - Yield to Maturity Industry: Scheduled Airlines - Freight 2020 Assessment Year

Α	В	С	D	E	F
				Moody's	
		Industry	Financial	Long Term	Numeric
Ticker	Company	Group	Strength	Rating	Rating
		Value Line	Value Line	Moodys.com	
AAWW	Atlas Air Worldwide	AIRTRANS	B+		
AIRT	Air T Inc	AIRTRANS	С		
ATSG	Air Transport Services Grp.	AIRTRANS	В	Ba2	12
FDX	FedEx Corp.	AIRTRANS	A++	Baa2	9
UPS	United Parcel Serv.	AIRTRANS	Α	A2	6
Averaç	je				9
Media	n				9
High					12
Low					6
Selected	I			Ba1	11

Support for Direct Capitalization - Equity Capitalization Rate Industry: Scheduled Airlines - Freight 2020 Assessment Year

Α	В	С	D	E	F	G	Н		J	K	L	М	N	0	Р	Q	R
													Ke	Ke			
		End of											Estimate -	Estimate -			i l
		Year					Ke	Ke					Cash	Cash			ı l
		Closing					Estimate -	Estimate -	VL Historic	VL Est		VL Est	Flow	Flow		Book	ı l
		Stock	VL Historic	VL Est	VL Historic	VL Est P/E	Earnings	Earnings	Cash Flow	Cash Flow	VL Historic	P/CF	(Hist.	(Est.	Market Value	Value	ı l
Ticker	Company	Price	EPS	EPS	P/E Ratio	Ratio	(Hist. P/E)	(Est. P/E)	Per Share	Per Share	P/CF Ratio	Ratio	P/CF)	P/CF)	of Equity	of Equity	MTBR
		Yahoo	Value Line	Value Line	C/D	C/E	1/F	1/G	Value Line	Value Line	C/J	C/K	1/L	1/M	Price x Shrs	10-K	P/Q
AAWW	Atlas Air Worldwide	27.57	5.32	4.55	5.18	6.06	19.30%	16.50%	15.39	14.60	1.79	1.89	55.82%	52.96%	713	1,792	0.40
AIRT	Air T Inc	20.15	0.75	0.00	26.87		3.72%		2.97	0.00	6.78		14.74%		41	22	1.82
ATSG	Air Transport Services Grp.	23.46	(0.71)	1.61	(33.04)	14.57		6.86%	4.69	0.00	5.00		19.99%		1,392	460	3.02
FDX	FedEx Corp.	151.21	13.60	10.75	11.12	14.07	8.99%	7.11%	28.67	24.55	5.27	6.16	18.96%	16.24%	39,437	18,659	2.11
UPS	United Parcel Serv.	117.06	7.53	7.90	15.55	14.82	6.43%	6.75%	9.92	10.95	11.80	10.69	8.47%	9.35%	100,495	3,267	30.76
Average	9				5.13	12.38	9.61%	9.31%			6.13	6.25	23.60%	26.18%			7.62
Median					11.12	14.32	7.71%	6.99%			5.27	6.16	18.96%	16.24%			2.11
High					26.87	14.82	19.30%	16.50%			11.80	10.69	55.82%	52.96%			30.76
Low					(33.04)	6.06	3.72%	6.75%			1.79	1.89	8.47%	9.35%			0.40
Selected					13.	61	7.3	5%			5.68	8	17.6	60%			2.30

Support for Direct Capitalization - Debt Capitalization Rate Industry: Scheduled Airlines - Freight 2020 Assessment Year

(\$ in Millions)

Α	В	C	D	E	F	G	Н	I	J
		YE 2019	YE 2018	YE 2018	YE 2019	YE 2019	2019 Avg	2019	
Ticker	Company	Interest Exp.	MV LT Debt	BV LT Debt	MV LT Debt	BV LT Debt	MV LT Debt	Current Yield	MTBR
		10-K	10-K	10-K	10-K	10-K	(D+F)/2	(C/H)	(F/G)
AAWW	Atlas Air Worldwide	120	2,565	2,470	2,464	2,381	2,515	4.78%	1.04
AIRT	Air T Inc	3	48	48	58	58	53	6.48%	1.00
ATSG	Air Transport Services Grp.	67	1,395	1,401	1,482	1,484	1,438	4.63%	1.00
FDX	FedEx Corp.	588	16,600	16,585	17,800	17,581	17,200	3.42%	1.01
UPS	United Parcel Serv.	653	23,293	22,736	26,949	25,238	25,121	2.60%	1.07
All Comp	panies	1,431			48,753	46,742	46,327	3.09%	1.04
Average	e							4.38%	1.02
Median	1							4.63%	1.01
High								6.48%	1.07
Low								2.60%	1.00
Selected								4.60%	1.01

Support of Stock Price - From YAHOO Finance Industry: Scheduled Airlines - Freight 2020 Assessment Year

		End of Period Closing Stock Price											
1	2	3	4	5	6	7	8	9	10	11	12	13	14
Α	В	С	D	E	F	G	Н	ı	J	K	L	М	N
Ticker	Company	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
AAWW	Atlas Air Worldwide	53.22	53.74	50.56	48.29	35.39	44.64	45.65	25.85	25.23	21.93	26.09	27.57
AIRT	Air T Inc	20.28	21.56	20.13	18.00	18.14	17.49	17.57	17.75	18.78	18.71	22.07	20.15
ATSG	Air Transport Services Grp.	23.75	23.27	23.05	23.53	21.94	24.40	23.31	20.20	21.02	21.06	24.61	23.46
FDX	FedEx Corp.	177.57	181.00	181.41	189.46	154.28	164.19	170.53	158.61	145.57	152.66	160.05	151.21
UPS	United Parcel Serv.	105.40	110.20	111.74	106.22	92.92	103.27	119.47	118.66	119.82	114.01	119.73	117.06



Maintenance Capital Expenditures Estimate Based on Guideline Companies Industry: Scheduled Airlines - Freight 2020 Assessment Year

(\$ In Millions)

1	2		3	4	5	6	7	8	9	10	11
Α	В	С	D	E	F	G	Н	I	J	K	L
							Average				
			PP&E,	PP&E,	Average	Depreciation	Life of			Replacement	RC as % of
Ticker	Company	Inflation	Gross	Gross	PP&E	Expense	Assets			Cost (RC)	Depreciation
				Previous							
			Current Year	Year				Note [1]	Note [1]	Note [1]	
		MTDOR (CPI)	10-K, Notes	10-K, Notes	(D+E)/2	10-K (CF)	F/G	C*H	1/(1+C)^H	G*I/(1-J)	K/G
AAWW	Atlas Air Worldwide	2.20%	5,031	5,323	5,177	317	16	0.36	0.70	381	120.13%
AIRT	Air T Inc	2.20%	10	9	10	8	1	0.03	0.97	8	102.52%
ATSG	Air Transport Services Grp.	2.20%	2,912	2,501	2,707	285	9	0.21	0.81	319	111.89%
FDX	FedEx Corp.	2.20%	59,511	55,121	57,316	3,353	17	0.38	0.69	4,059	121.06%
UPS	United Parcel Serv.	2.20%	59,727	54,488	57,108	2,360	24	0.53	0.59	3,069	130.04%
Average											117.13%
Median											120.13%
High											130.04%
Low											102.52%
Selected	_				_						117.00%

Notes

[1] Cornell, B. & Gerger, R. (2017). Estimating Terminal Values with Inflation: The Inputs Matter-It Is Not a Formulaic Exercise. Business Valuation Review, Volume 36, Number 4, 117-123.